

XXX.—On the *Myriopoda*, from *Siberia* and *Waigatsch Island*, collected during the *Expedition of Prof. Norden-skiöld*, 1875. By ANTON STUXBERG.

As far as I am aware from studying the literature of the subject, only ten species of *Myriopods* have hitherto been known from the whole of *Siberia*, including the island of *Sakhalin*. These are:—(1) *Lithobius sibiricus*, Gerstf.; (2) *L. rapax*, Mein.; (3) *Scoliopterus sacalinensis*, Mein.; (4) *Geophilus longicornis* (Leach), Gerstf.; (5) *G. pilosus*, Mein.; (6) *Iulus terrestris* (Linn.), Gerstf.; (7) *Iulus amurensis*, Gerstf.; (8) *Iulus armatus*, Gerstf.; (9) *Platydesmus amurensis*, Gerstf.; (10) *Craspedosoma dahuricum*, Gerstf.

Beside other Land-Arthropods, during Prof. Nordenskiöld's last expedition to *Novaja Semlja* and *Siberia*, a considerable number of specimens of *Myriopods* were collected sufficiently perfect for description. This collection includes eighteen species. One of these, *Geophilus pilosus*, Mein., was already known from the north of *Asia*—not from the mainland of *Siberia*, but from the neighbouring island of *Sakhalin*. Two others, *Lithobius crassipes*, L. Koch, and *Polyzonium germanicum*, Brandt, have been long since found in *Europe*; the remaining fifteen species are new to science.

The following is a list, systematically arranged, of all the *Myriopods* now known to inhabit *Siberia*:—

CHILOPODA.

1. *Lithobius ostiacorum*, n. sp.
2. — *sibiricus*, Gerstf.
3. — *rapax*, Mein.
4. — *princeps*, n. sp.
5. — *scrobiculatus*, n. sp.
6. — *sulcipes*, n. sp.
7. — *Nordenskiöldii*, n. sp.
8. — *formicarum*, n. sp.
9. — *crassipes*, L. Koch.
10. — *fugax*, n. sp.
11. — *vagabundus*, n. sp.
12. — *captivus*, n. sp.
13. *Scoliopterus sacalinensis*, Mein.
14. *Geophilus sibiricus*, n. sp.
15. — *longicornis* (Leach), Gerstf.
16. — *pilosus*, Mein.

CHILOGNATHA.

17. *Iulus terrestris* (Lin.), Gerstf.
18. — *profugus*, n. sp.
19. — *amurensis*, Gerstf.
20. — *armatus*, Gerstf.
21. *Polydesmus clavipes*, n. sp.
22. — *tabescens*, n. sp.
23. *Craspedosoma dahuricum*, Gerstf.
24. — *cylindricum*, n. sp.
25. — *deplanatum*, n. sp.
26. *Platydesmus amurensis*, Gerstf.
27. *Polyzonium germanicum*, Brandt.

Our present knowledge of the structure of the *Siberian Myriopods* scarcely offers any opportunity for comparison with those of other countries. For, of the twenty-seven species above mentioned, no less than twenty-three consist of forms

that have not as yet been found anywhere but in Siberia; and as regards the other four species, it seems probable that two of them, namely those which have been referred by Gerstfeldt to *Geophilus* (*Arthronomalus*) *longicornis*, Leach, and *Iulus terrestris*, Linné, represent quite distinct though allied forms. Indeed it is scarcely to be supposed that two forms so undoubtedly European would extend so far eastward, beyond Baikal, as where the Songari empties itself into the Amur, where the latter—or the river Schilka, where the former is said to have been found. Statements of this kind must be received with caution and not implicitly relied on. The two others, the *Lithobius crassipes*, L. Koch, and the *Polyzonium germanicum*, Brandt, as we have already said, were long since known as European. The former is a species frequently met with and widely spread in Europe. It is also found on the coast of North Africa, and in the north of Europe extends far beyond the woody region, being found in the island of Waigatsch, the south end of which lies forty-five geographical miles to the north of that region. In Siberia it is found in the neighbourhood of Yenisei between 61° and 64° north latitude, and may probably be met with much further to the north. The *Polyzonium germanicum*, on the other hand, is a more southern form. It is found in the Caucasus, Poland, Germany, in France (near Paris), in Denmark, in the south of Sweden as far as Bohuslän (58° – 59° N. lat.), and is said to occur on the shores of the Gulf of Finland, but not further north*. Such being the case, it appears rather strange to find it in Siberia near the river Yenisei, in the high latitude of $66^{\circ}17'$ north. In Scandinavia it is one of the most southern Chilognatha; near Yenisei, it was the very first of this order that was found by the Swedish expedition when ascending the river on their way back through Siberia. For these reasons it seems probable that the latter species has its original centre not in Europe, nor in the Caucasus, but in Central Asia; and it has perhaps, in spreading, taken the same course as the great number of plants which at the present time belong to the flora of Europe, but originally came from the widely branched Altai range. But this cannot as yet be more than conjecture.

Before entering upon a description of the species brought home, I may be allowed here to make the following brief remarks. The *Platydesmus amurensis*, Gerstf., is the representative of a genus of which before only one species was

* The information that this species is met with in Finland was given me by Dr. Richard Sievers, who is occupied with a monograph of the Myriopoda of Finland.

known, viz. the Mexican one. The *Craspedosoma deplanatum*, n. sp., as bearing the strongest resemblance to a typical *Polydesmus*, is unique, having no known ally in any part of the earth. The *Craspedosoma dahuricum*, Gerstf., and the *C. cylindricum*, n. sp., may be regarded as representatives of the European *C. Rawlinsii*, Leach, their close resemblance in form pointing to a near affinity of origin. The *Polydesmus clavatipes*, n. sp., is a form of the subgenus *Icosidesmus*, Humb. & Saussure (distinguished by the strange conformation of the legs), of which, as far as I know, only one species has been described, viz. from New Zealand. If we except the *Lithobius sibiricus*, Gerstf. (which has been, considering the claims of the present time, very imperfectly described, and probably is a collective species), and the *L. ostiacorum*, n. sp. (a *Lithobius* sensu strictiore*), the remaining *Lithobii* belong to that division of the subgenus *Archilithobius* which is characterized by four (never more) teeth on the coxal part of the second pair of jaw-feet, and by usually 20-jointed antennæ, and of which the centre, to judge from the 119 species hitherto known of the genus *Lithobius* in the wider sense, seems to be in the north-east of Asia, though it has also some representatives in Europe, and at least as many on the Californian coast.

It is obvious from the foregoing remarks that the Siberian Myriopoda have very little in common with those of Europe; and what there is leads us to suppose that Asia has been the centre in which they originated. In order to acquire a true knowledge of the geographical distribution of the species, it makes a great difference whether we say that Asia has received such and such forms from Europe, or that Europe has received them from Asia. The Siberian Myriopod fauna is much too independent, as it were, in its composition, to allow us to speak of genuine European forms. It seems we shall come nearest the truth by saying that Europe has borrowed from Asia the Myriopods it has in common with Siberia.

1. *Lithobius ostiacorum*, n. sp.

Lamina cephalica subcircularis, lateribus valde rotundatis, eadem longitudine ac latitudine, infra marginem posticum impressionibus duabus rotundate triangularibus evanidis, lævis, setis rigidis longis sparse vestita; antennæ articulis 20, cylindræis, longe setosis compositæ, dimidiam corporis longitudinem assequentes; oculi ellipsoidei, ocellis 9-10 in 3 series (1+3, 2, 3 v. 1+3, 3, 3)

* Compare Stuxberg, "Genera et Species Lithobioidarum" (Æfvers. Kgl. Vet. Akad. n. s. Förhandl., årg. 32 (1875), no. 3), where (p. 8) the six subgenera *Eulithobius*, *Neolithobius*, *Lithobius*, *Pseudolithobius*, *Hemilithobius*, and *Archilithobius* are briefly characterized.

rectas longitudinales digestis compositi; coxæ pedum maxillarium secundi paris dentibus 2+2 haud validis armatæ, sinu mediano angulari prope æque profundo ac lato, antice setis longis vestitæ; scuta dorsualia leviter rugosa et sparsissime pilosa, 3., 5., 8., 10., 12., 14. margine postico magis magisque sinuata, 1., 2., 4., 6., 7., 9., 11., 13. rotundata et tribus sulcis parvis prædita, 9., 11., 13. angulis posticis productis; scuta ventralia convexiuscula, postica præsertim sparse pilosa, omnia impressionibus angularibus; pori coxales rotundi in ♂ 3, 3, 4, 3-3, 4, 4, 3-4, 4, 4, 3-4, 4, 4, 4-4, 4, 5, 4-4, 5, 4, 4-4, 5, 6, 4, in ♀ 3, 4, 4, 4-4, 4, 4, 4-5, 5, 5, 5; pedes primi paris calcaribus 0, 0, 1-0, 1, 1: pedes anales mediocres, longitudine tres partes antennarum æquantes, haud incrassati, unguibus 2, calcaribus 1, 3, 2, 0 armati (mas articulo quinto supra profunde sulcato); pedum analium articulus primus inermis: unguis genitalium femineorum integer, acutus; calcarium 2 paria, quorum exterius interiore multo majus. Color dorsi testaceus vel brunneo-testaceus, interdum vitta abrupta obscuriore, ventris pallidior, griseus; caput multo obscurius quam dorsum. Longitudo corporis 12-14 m. m., antennarum 6 m. m., pedum analium 4 m. m.

Hab. circa flumen Jenissej ad Krasnojarsk (56°), Kolmogorova (59° 30'), Verschinskij (68° 45'), Dudino (69° 15').

2. *Lithobius princeps*, n. sp.

Lamina cephalica subquadrata, lateribus valde rotundatis, latitudine majore quam longitudine, setis longis sparsissimis vestita; antennæ articulis 20, cylindræis, rigide setosis compositæ, longitudine tertiam partem corporis vix assequentes; oculi ellipsoidei, ocellis 18-19, in 5 series transversas digestis (1+4, 4, 4, 3, 2-1+3, 4, 5, 4, 2), compositi; coxæ pedum maxillarium secundi paris dentibus 2+2 brevibus, validis, nigris armatæ, sinu mediano profundo et lato, fere duplo latiore quam longiore; scuta dorsualia sat rugulosa, sæpissime subglabra, angulis posticis rotundatis; scuta ventralia plana vel subplana; pori coxales magni, rotundi vel medii transversi, ovals, in ♂ 5, 5, 6, 5-6, 6, 6, 6, in ♀ 6, 7, 6, 7-7, 7, 7, 7; pedes primi paris calcaribus 2, 2, 1; pedum analium articulus primus inermis; pedes anales mediocres, inflati, sparse et rigide setosi, unguibus 2, calcaribus 1, 3, 2, 1 armati: unguis genitalium femineorum ad basin inflatus, bilobus, lobo superiore paullo brevior quam inferiore; calcarium 2 paria, crassa, valida, exterius interiore parum majus. Color dorsi et capitis brunneus vel castaneus, ventris et pedum flavus vel griseus. Longitudo corporis (18-) 21 m. m., antennarum 6.5 m. m., pedum analium 6.5 m. m.

Junior. Antennæ articulis 20, subcylindræis; oculi ocellis 10 in 4 series transversas digestis (1+1, 3, 3, 2); coxæ pedum maxillarium secundi paris dentibus 2+2 armatæ; pedes primi paris calcaribus 0, 0, 1; pedes anales calcaribus 1, 3, 2, 0; pori coxales 4, 4, 4, 4 rotundi. Longitudo corporis 11 m. m.

Juvenis antennæ articulis 17 moniliformibus; oculi ocellis 5 in 2 series digestis (1+2, 2); coxæ pedum maxillarium secundi paris dentibus 2+2 armatæ; pedes primi paris calcaribus 0, 0, 1: pedes anales calcaribus 1, 1, 1. 0; pori coxales 2, 1, 1, 1 magni, rotundi. Longitudo corporis 7 m. m., antennarum 1.7 m. m.

Pullus pedum paribus 10, duo paria gignit; antennæ articulis 17 moniliformibus; oculi ocellis 3 in seriem simplicem curvatam digestis; coxæ pedum maxillarium secundi paris dentibus 2+2 armatæ; pedes primi paris calcaribus 0, 0, 1. Longitudo corporis 3.3 m. m., antennarum 1 m. m.

Hab. circa flumen Jenissej inter 61 et 62 gradus lat. bor.

3. *Lithobius scrobiculatus*, n. sp.

Lamina cephalica subquadrata, latitudine majore quam longitudine, foveis 6 rotundatis plus minus profundis pone et 3 ante suturam frontalem prædita; antennæ articulis 20 cylindraceis compositæ, dimidiam corporis longitudinem haud assequentes; oculi ellipsoidei, ocellis 17, in 4-5 series transversas curvatas vel irregulares digestis, compositi; coxæ pedum maxillarium secundi paris dentibus 2+2 brevibus validis armatæ, sinu mediano semicirculari, haud profundo; scuta dorsualia rugosa, sparsissime hirsuta, angulis posticis rotundatis; scuta ventralia plana vel subplana; pori coxales 6, 7, 7, 6 (♀) magni, rotundi vel medii ovoides, transversi; pedes primi paris calcaribus 1, 2, 1; pedum analium articulus primus inermis; pedes anales (mutilati): unguis genitalium femineorum bilobus, lobis latis, curtis, nigris, inferiore duplo minore quam superiore; calcarium 2 paria, exteriore interius haud multo superante. Color dorsi testaceus, capitis brunneo-testaceus, ventris et pedum griseus. Longitudo corporis 16 m. m.

Hab. circa flumen Jenissej ad Pupkovskij (64° 42'). Unum tantum specimen (♀) vidimus.

4. *Lithobius sulcipes*, n. sp.

Lamina cephalica subcircularis, margine postico fere recto, setis paucis vestita; antennæ articulis 20 moniliformibus, rigide setosis compositæ, quorum ultimus 2 præcedentibus longitudine æqualis, dimidiam corporis longitudinem prope assequentes; oculi ellipsoidei, ocellis 10-13 in 5 series longitudinales, rectas vel subrectas digestis (1+4, 3, 2-1+5, 4, 3), postico maximo et longo intervallo ab cæteris distante; coxæ pedum maxillarium secundi paris dentibus 2+2 validis, nigrescentibus armatæ, sinu mediano non profundo, ad marginem anticum pilis sparsis magnis vestitæ; scuta dorsualia sublævia, postica præsertim sparse pilosa, omnia angulis posticis rotundatis, 3., 5., 8., 10., 12., 14. margine postico magis magisque sinuata, 1., 2., 4., 6., 7., 9., 11., 13. recta; scuta ventralia posteriora convexiuscula, anteriora medio impressa, 5-13. angulis posticis sulco obliquo profundo præditis; pori coxales

rotundi, in ♂ 2, 3, 3, 3-3, 3, 4, 3-3, 4, 3, 3-3, 5, 4, 4, in ♀ 3, 4, 4, 3-3, 4, 4, 4; pedes primi paris calcaribus 0, 0, 1-0, 1, 1; pedum analium articulus primus inermis; pedes anales mediocres vel breves, vix vel minus inflati, articulis 4°, 5°, 6° supra sulcatis, unguibus 2, calcaribus (1, 2, 0, 0) 1, 3, 1, 0-1, 3, 2, 0-1, 3, 2, 1: unguis genitalium femineorum integer, acutus vel subacutus; calcarium 2 paria, interius exteriori plerumque duplo brevius. Color dorsi testaceus, interdum vitta longitudinali abrupta æque ac capite obscuriore, ventris et pedum dilutior; pedes anales sæpissime fusco-annulati. Longitudo corporis 14 m. m., antennarum 6 m. m., pedum analium 4·7 m. m.

Hab. circa flumen Jenissej ad Krasnojarsk (56°), Vorogova (60° 55'), Podkamennoj Tunguskoj (61° 40'), Nischnij Inbatskoj (63° 50'), Baklanovskij (64° 25'), Troitskoj (65° 45'), Goroschinskij (66° 17').

5. *Lithobius Nordenskiöldii*, n. sp.

Lamina cephalica subcircularis, longitudine paullo majore quam latitudine, lævis, setis sparsis vestita; antennæ articulis 20 (17, 18, 19), brevibus, crassis, dense et rigide setosis compositæ, duplam capitis latitudinem longitudine æquantes; oculi ocellis 4-7 magnis, in duplici serie longitudinali dispositis, compositi; coxæ pedum maxillarium secundi paris dentibus 2+2 validis, conicis, haud nigris, æquo intervallo distantibus, margine antico-laterali setis nonnullis armatæ; scuta dorsualia lævia, postica præsertim pilis longis sparse vestita, omnia angulis posticis rotundatis, 1., 3., 5., 8., 10., 12., 14. margine postico sinuata, primo excepto haud elevata, 2., 4., 6., 7., 9., 11., 13. recta; scuta ventralia omnia plana vel convexiuscula, impressionibus angularibus nullis vel brevibus; pori coxales rotundi, in ♂ 1, 2, 2, 2-4, 4, 4, 3, in ♀ 3, 3, 3, 3; pedes primi paris calcaribus 0, 1, 1; pedum analium articulus primus inermis; pedes anales breves, incrassati, unguibus 2, calcaribus 1, 2, 0, 0-1, 2, 1, 0-1, 2, 2, 0 (mas processu magno articuli quinti setigero): unguis genitalium femineorum conicus, integer; calcarium 2 paria, brevia, conica. Color dorsi testaceo-brunneus, capitis cum trophis et antennis æque ac ultimorum segmentorum cum pedibus analibus brunneus. Longitudo corporis (6-10) 10 m. m., antennarum (1·8-3·5) 3·5 m. m., pedum analium (2-3) 3 m. m.

Hab. circa flumen Jenissej ad Sopotschnaja Korga (71° 40'), Dudino (69° 15'), Selivaninskij (65° 55'), Pupkovskij (64° 42'), Nischnij Inbatskoj (63° 50'), Vorogova (60° 55').

6. *Lithobius formicarum*, n. sp.

Lamina cephalica subcircularis, margine postico subrecto, eadem longitudine ac latitudine, lævis, setis longis sparse vestita; antennæ articulis 20 moniliformibus vel cylindraceis compositæ, longe et

rigide setosæ, breviores, longitudine tertiam partem corporis superantes; oculi ocellis 4-6, in 2-3 series partim longitudinales partim subtransversas digestis, compositi; coxæ pedum maxillarium secundi paris dentibus 2+2 longis, acutis, haud validis; scuta dorsualia lævia, setis longis sparsissimis vestita, angulis posticis rotundatis, 8., 10., 12., 14. margine postico sinuata, cetera recta vel subrecta; scuta ventralia convexiuscula; pori coxales rotundi, minimi, magno intervallo distantes, in ♂ 1, 2, 2, 2; pedes primi paris calcaribus 0, 0, 1; pedum analium articulus primus inermis; pedes anales tenues, longitudine quatuor partes antennarum æquantes, setis longis sparsissimis vestiti, unguibus 2, calcaribus 1, 2, 1, 0-1, 3, 2, 0-1, 3, 2, 1 armati. Color dorsi testaceus, capitis obscurior, ventris griseus. Longitudo corporis 6.5 m. m., antennarum 2.5 m. m.

Hab. ad flumen Jenissej circa pagum Podkamenno Tun-guskoj (61° 40') in coloniis formicarum. Feminas non vidimus.

7. *Lithobius crassipes*, L. Koch, 1862.

1862. *Lithobius crassipes*, L. Koch, Myriapodengatt. *Lithobius*, p. 71.

1866. — *curtipes*, Palmberg, Bidr. t. känned. om Sveriges Myriapoder Ord. Chilopoda, p. 19.

1866. — *crassipes*, Palmberg, ibidem, p. 21.

1869. — " Meinert, Naturhist. Tidsskrift, 3dje Række, Bind v. p. 263.

1869. — *crassipes*, v. Porath, Œfvers. Kgl. Vet.-Akad. Förhandl., årg. 26, p. 639.

1869. — *curtipes*, v. Porath, ibidem, p. 639.

1871. — " Stuxberg, ibidem, årg. 28, p. 501.

1871. — *crassipes*, Stuxberg, ibidem, p. 500.

1872. — " Meinert, Naturhist. Tidsskrift, 3dje Række, Bind viii. p. 340.

Lamina cephalica subquadrata, eadem fere longitudine ac latitudine, margine postico subrecto, pilis sparsissimis minimis vestita; antennæ articulis 20 moniliformibus, ultimo duplo longiore quam præcedentibus 2 junctis, compositæ, breves, tertiam partem corporis longitudinis vix assequentes; oculi ocellis 6-12, in 2-3 series longitudinales irregulares digestis (1+3, 2-1+3, 3-1+4, 3-1+4, 3, 2-1+4, 4, 3), compositi; coxæ pedum maxillarium secundi paris dentibus 2+2 validis armatæ, setis paucis ad marginem anticum, sinu mediano profundo; scuta dorsualia obsolete rugosa, sparse vel dense pilosa, præsertim postice, angulis posticis rotundatis; pori coxales rotundi in ♂ 2, 3, 3, 2-2, 3, 3, 3-3, 3, 3, 3-4, 4, 4, 3, in ♀ 2, 3, 3, 3-3, 4, 4, 3-4, 4, 4, 3; pedes primi paris calcaribus 0, 2, 1 -1, 2, 1; pedum analium articulus primus inermis; pedes anales breves, inflati, articulo quinto in mare processu parvo prædito, ungue singulo, calcaribus 1, 3, 2, 0 armati: unguis genitalium femineorum trilobus; calcarium 2 paria. Color brunneus vel castaneus, capite obscuriore aut pallidiore. Longitudo corporis 8-10 m. m.

Hab. in insula Waigatsch ad promontorium Grebennij sub

lapidibus calcareis frequentissimus, nec non circa flumen Jenissej ad pagos Nischnij Inbatskoj ($63^{\circ} 50'$) et Vorogova ($60^{\circ} 55'$).

The specimens from Waigatsch correspond better than those from Yenisei with the Scandinavian ones. Those from Yenisei, namely, differ in appearance by being much darker brown in colour; and their dorsal shields are very densely covered with hairs, which is seldom the case, and then only in a slight degree, with the specimens from Waigatsch, and, as far as I know, never with Scandinavian or South-European specimens.

Meinert (*op. cit.* 1872, pp. 341, 342) has noticed that the *Lithobius curtipes*, adopted by Palmberg in 1866, by v. Porath in 1869, and by me in 1871 as one of the Myriopods of Sweden, is not C. L. Koch's species of the same name, but a form of *L. crassipes*, L. Koch. He also corrects an error in C. L. Koch's, L. Koch's, and my own statements regarding the situation of the process-like appendage which characterizes the fifteenth pair of feet in the male. I avail myself of this opportunity to admit the truth of all this. I also remark that the *L. curtipes*, C. Koch, does not occur, or, at least, has not hitherto been found within the Scandinavian provinces, and as little in Sweden and Norway as in Denmark. Excepting the *L. forficatus* (Linné) from North-east America and the entire west of Europe from Italy and Spain to the north of Sweden, there is no species of the genus *Lithobius*, so rich in forms, that for wide geographical distribution can at present compare with *L. crassipes*, which has already been found at Bona on the coast of North Africa, in Spain, in the south of Tyrol, in Bavaria, in Denmark, in the south and middle of Sweden, in Finmark and the north of Finland, and now in the island of Waigatsch and far into Siberia near the river Yenisei.

8. *Lithobius fugax*, n. sp.

Lamina cephalica subcircularis, margine postico parum rotundato, eadem longitudine ac latitudine, lævis, setis sparsissimis minimis vestita; antennæ articulis 20 cylindræis compositæ, breves, tertiam partem corporis longitudinis superantes; oculi ocellis 9, binis posticis maximis, ab aliis parvo intervallo secretis, ceteris in circulum digestis, singulo centrali, compositi; coxæ pedum maxillarium secundi paris dentibus 2+2 validis nigris armatæ, sinu mediano profundo, paullo latiore quam longiore; scuta dorsualia lævia, haud pilosa, angulis posticis rotundatis; pori coxales rotundi in ♂ 3, 4, 4, 4-3, 5, 5, 4, in ♀ 3, 4, 4, 4-4, 4, 4, 4; pedes primi paris calcaribus 1, 2, 1; pedum analium articulus primus inermis; pedes anales mediocres, sat inflati, sparse pilosi, ungue singulo, calcaribus 1, 3, 2, 0; unguis genitalium femineorum bi- vel obsolete trilobus;

calcarium 3 vel 4 paria, longitudine subæqualia. Color dorsi testaceo-brunneus, capite obscuriore, antennis pedibusque ultimis rufo-brunneis. Longitudo corporis 12–13 m. m., antennarum 3–4 m. m., pedum analium 3 m. m.

Hab. ad urbem Krasnojarsk (56°) sat frequens.

9. *Lithobius vagabundus*, n. sp.

Lamina cephalica subquadrata, marginibus lateralibus parum rotundatis, eadem latitudine ac longitudine, lævis, setis sparsissimis vestita; antennæ articulis 20 (19) moniliformibus, ultimo 2 præcedentes longitudine æquante, rigide setosæ, longitudine tertiam partem corporis assequentes; oculi ocellis 5–6, in 2 series longitudinales subrectas digestis, compositi; coxæ pedum maxillarium secundi paris dentibus 2+2 armatæ, sinu mediano latiore quam longiore; scuta dorsualia omnia sublævia, pilis evanidis, angulis posticis rotundatis; pori coxales rotundi in ♂ 2, 3, 3, 2–3, 4, 4, 3, in ♀ 4, 4, 4, 4–4, 5, 5, 4; pedes primi paris calcaribus 0, 1, 1; pedum analium articulus primus inermis; pedes anales mediocres, sat inflati, sparse et longe setosi, articulo sexto in mare ad latus exterius sulcato, ungue singulo, calcaribus 1, 3, 2, 0–1, 3, 2, 1: unguis genitalium femineorum ad basin inflatus et crassus, acumine integer, acutus; calcarium 2 paria. Color dorsi brunneus vel testaceo-brunneus, capite segmentisque ultimis cum pedibus rufescentibus. Longitudo corporis 11 m. m., antennarum 3.5 m. m., pedum analium 3 m. m.

Hab. circa flumen Jenissej ad Vorogova (60° 50'), Intsarevo (62°), Surgutskoj (62° 50'), Aninskoj (63° 30'), Goroschinskoj (66° 17').

10. *Lithobius captivus*, n. sp.

Lamina cephalica circularis, eadem longitudine ac latitudine, lævis, setis sparsissimis prædita; antennæ articulis 20 brevibus, cylindraceis, ultimo 3 præcedentes junctos longitudine æquante, compositæ, breviores, tertiam partem corporis longitudinis haud assequentes; oculi ocellis 6 magnis, in 2 series longitudinales rectas digestis, compositi; coxæ pedum maxillarium secundi paris dentibus 2+2 validis armatæ, setis sparsis, longis præsertim ad marginem antieum vestitæ; scuta dorsualia lævia, longe et sparse setosa, 1., 3., 5., 8., 10., 12., 14. margine postico sinuata, 2., 4., 6., 7., 9., 11., 13. recta, omnia angulis posticis rotundatis; scuta ventralia plana; pori coxales in ♂ 4, 4, 4, 3, rotundi; pedes primi paris calcaribus 1, 1, 1; pedum analium articulus primus inermis; pedes anales haud longi, incrassati, setis longis, rigidis vestiti, ungue singulo, calcaribus 1, 2, 1, 0 armati—maris articulus quintus processu haud magno, setis nonnullis (4, 5, 6) rectis prædito, instructus. Color dorsi testaceo-brunneus, capitis obscurior; antennæ versus

apicem dilute brunneæ. Longitudo corporis 7·5 m. m., antennarum 2·5 m. m.

Hab. ad flumen Jenissej circa pagum Podkamenno Tunguskoj (61° 40') in coloniis formicarum. Unum tantum specimen (♂) vidimus.

11. *Geophilus sibiricus*, n. sp.

Sat gracilis; flavus vel cereus, capite cum trophis dilute brunneo; laminis dorsualibus lævibus, non setigeris; pedes maxillares secundi paris læves, sparsissime punctati, flexi marginem frontalem non assequentes; coxæ coalitæ minus latæ, margine antico dentibus duobus minimis armatæ; unguis inermis; lamina cephalica multo longior quam latior (longitudine ad latitudinem = 5:4), lævis, supra glabra, ad latera pilis nonnullis longis vestita; lamina basalis lata, quintuplo latior quam longior; lamina præbasalis obtecta; lamina frontalis non discreta; antennæ longæ, quadruplo longiores quam caput; laminæ dorsuales læves, glabræ, obsoletius bifoveolatæ; spiracula omnia rotunda, antica magna, media et postica minima; laminæ ventrales pilis brevibus densius vestitæ, bisulcatæ, anticæ medio profunde foveolatæ; pedes sat longi, tenues: pleuræ posticæ læves, haud pilosæ, poris 12–15 magnis, partim ventralibus, partim lateralibus, partim obtectis instructæ; lamina ventralis subquadrata, lateribus subrectis, postice parum convergentibus: pori anales nulli; pedes anales pedibus paris præcedentis multo longiores, ungue longó, curvato, acuto—feminæ tenues, attenuati, parce pilosi. Pedes feminæ p. p. 57, 59. Longitudo 35–37 m. m.

Hab. ad Krasnojarsk.

12. *Geophilus pilosus*, Meinert, 1870.

“Minus robustus, ochraceus, vel præter partem mediam luridam ochraceus, capite cum trophis brunneo, pilis brevioribus densius vestitus: pedes maxillares secundi paris sat grosse, densius punctati, flexi marginem frontalem magno spatio superantes; coxæ coalitæ latæ, margine antico medio angulatim sinuato, lineis duabus chitineis valde abbreviatis, lateralibus fultæ; unguis inermis: lamina cephalica longior quam latior, sat grosse et dense punctata; lamina basalis minus lata; lamina præbasalis obtecta (lamina frontalis discreta): antennæ longæ: laminæ dorsuales densius punctatæ, præsertim posticæ, obsoletius bisulcatæ; spiracula antica, præsertim par primum, magna, rotunda; laminæ ventrales pilis densius vestitæ, anticæ medio profunde, lateribus obsoletius foveolatæ; pedes sat longi, antici paullo crassiores: pleuræ posticæ pilis longis sparse vestitæ, poris magnis profundis, numerosis infra et supra instructæ; lamina ventralis angustissima, lateribus fere parallelis: pedes anales pedibus paris antecedentis paullo longiores, pilis longioribus

sparse vestiti, ungue parvo armati—feminæ tenues attenuati, maris incrassati. Pedes feminæ p. p. 49, maris p. p. 45." (*Meinert.*) Longitudo feminæ 30–35 m. m.

Hab. circa flumen Jenissej ad pagos Nischnij Inbatskoj (63° 50') et Aninskoj (63° 30'), nec non inter urbes Krasnojarsk et Tomsk.

13. *Iulus profugus*, n. sp.

Corpus tenue, postice sensim attenuatum, ante sparse, post densius et longius crinitum; vertex sulco transverso profundiore, foveis setigeris duabus in striam productis; antennæ longitudine altitudinem corporis æquantes; oculi subtriangulares, ocellis 28, in series 7 transversas (4, 5, 5, 5, 4, 3, 2) digestis, compositi; segmentum primum læve, tenuiter aciculatum, lateribus fere semicirculariter rotundatis, supra marginem lateralem sulco singulo: segmentorum pars posterior dense et profunde striata, striis marginem posticum longo intervallo non assequentibus; pars anterior antice levis, postice tenuiter striata: foramina repugnatoria parva, longe pone suturam transversam sita; segmentum ultimum spina prominente, crassa, non acuta nec elongata; valvulæ anales non marginatæ, dense et longe setigeræ. Numerus segmentorum 40. Color fusco-brunneus; oculi nigri. Glandulæ odoriferæ perlucantes. Longitudo 15 m. m., altitudo 1·3 m. m.

Hab. in Sibiria occidentali inter urbes Tomsk et Kainsk.

14. *Polydesmus clavatipes*, n. sp.

Corpus parum depressum, convexiusculum, sparse et breviter setosum, nitidum; vertex glaber, pulcherrime reticulatus, sulco longitudinali subprofundo; frons dense et longe crinita; antennæ latitudine corporis paullo longiores; segmentum primum semicirculare, ad marginem anticum 12 tuberculis minimis, lateribus productis, rotundatis; segmentorum pars posterior lateribus rotundatis, non deplauatis nec dentatis, supra tuberculata, tuberculis 36 maximâ parte evanidis, setigeris, in 3 series transversas digestis; foramina repugnatoria parva, in lateribus sita; valvulæ anales manifeste marginatæ, setis nonnullis vestitæ. Color dorsi brunneus, immixtis maculis albidis præsertim in lateribus segmentorum anticorum, linea longitudinali obscura. Longitudo 10–11 m. m., latitudo mediî corporis 1·2–1·3 m. m.

Hab. inter urbes Atschinsk et Marinsk.

15. *Polydesmus tabescens*, n. sp.

Corpus elongatum, tenue, depressum, pilis brevibus clavatis, subnitidum; vertex sulco nullo longitudinali nec transverso, una cum fronte densissime crinitus; antennæ longitudine $\frac{1}{2}$ majore quam latitudo corporis; segmentum primum semicirculare, margine

antico tuberculato, lateribus productis, fere rectangulis, supra tuberculis minimis, evanidis; segmentorum pars posterior lateribus dentatis, post rotundatis, non productis, tuberculis 36 partim evanidis, setigeris, in 3 series transversas digestis; foramina repugnatoria —?; valvulae anales marginatae, setis paucis circa aperturam vestitae. Color albidus. Longitudo 7–7.5 m. m., latitudo medii corporis 0.6–0.7 m. m.

Hab. circa flumen Jenissej ad urbem Jenissejsk et ad pagum Aninskoj (63° 30').

16. *Craspedosoma cylindricum*, n. sp.

Corpus cylindricum, crassum, sparse et rigide setosum; vertex glaber; frons ad marginem labri setis nonnullis vestita; oculi triangulares, ocellis 24, in 5 series transversas digestis (5, 5, 5, 4, 3, 2), compositi; antennae longitudine $\frac{1}{2}$ majore quam latitudo corporis; segmentum primum lateribus valde productis, supra marginem carina elevata obliqua praeditis; segmenta linea dorsuali canaliculata, antica processibus perparvis, media et postica evanidis, setigeris, ad marginem inferiorem sulco longitudinali obliquo supraque cum carina praedita; valvulae anales marginatae, ad aperturam setis paucis vestitae; setae apicales 2, parte basali crassa, triplo longiore quam latiore, pellucida. Numerus segmentorum (26, 27,) 28. Color fusco-brunneus, linea dorsuali vittisque lateralibus pallidioribus. Longitudo 11–12 m. m., latitudo medii corporis 1.6 m. m.

Hab. in Siberia occidentali inter urbes Atschinsk et Marinsk.

17. *Craspedosoma deplanatum*, n. sp.

Corpus deplanatum, dorso prope plano, setigerum; vertex glaber, non tuberculatus, laevis; frons ad marginem labri setis sparsis minimis praedita; oculi triangulares, ocellis 28, in 7 series transversas digestis (7, 6, 5, 4, 3, 2, 1), compositi; antennae longitudine majore quam altitudo medii corporis; segmentum primum lateribus parum productis, prope rectangulis, rotundatis, tuberculis setigeris parum prominentibus, sulco transverso profundiore; segmenta linea dorsuali canaliculata, lateribus valde productis et supra exaratis, margine antico-laterali rotundatis, postico-laterali acutis; valvulae anales marginatae. Numerus segmentorum 32. Color nigro-brunneus, capite segmentisque anticis pallidioribus. Longitudo 12–15 m. m., latitudo medii corporis 2–2.3 m. m.

Hab. in Siberia occidentali inter urbes Atschinsk et Marinsk.

18. *Polyzonium germanicum*, Brandt, 1834.

1834. *Polyzonium germanicum*, Brandt, Isis, p. 704.

1837. *Platyulus Audouinianus*, Gervais, Ann. Sci. Nat. 2^me sér. t. vii., Zoologie, p. 48.

1837. *Polyzonium germanicum*, Brandt, ibidem, t. viii. p. 378.
 1839. *Liosoma roseum*, Motschoulsky, Bull. de Moscou, p. 44, tab. i.
 1840. *Polyzonium germanicum*, Brandt, Bull. Scientif. vii. p. 527.
 1841. — *germanicum*, Brandt, Recueil de Mém. cet. p. 50.
 1844. — „ Gervais, Ann. Sci. Nat. 3^me sér., t. ii. Zoologie,
 p. 72, tab. 5. fig. 12.
 1844. *Platyulus Audouinianus*, C. Koch, Deutschl. Crust., Myriap. &
 Arachn. 40, 17.
 1847. *Polyzonium germanicum*, Gervais, Hist. Nat. des Ins. Aptères, t. iv.
 p. 204.
 1851. — *germanicum*, Menge, Neueste Schriften der Naturforsch.
 Gesellsch. in Danzig, p. 7.
 1863. — *germanicum*, C. Koch, Die Myriapoden, Bd. i. p. 89, fig. 77.
 1866. — „ v. Porath, Sveriges Myriap., Ordn. Diplopoda,
 p. 34.
 1870. — *germanicum*, Meinert, Naturhist. Tidsskrift, 3de Række;
 Bind vi. p. 461.
 1871. — *germanicum*, Stuxberg, Öfvers. K. Vet. Akad. n. s. Förhandl.,
 årg. 27 (1870), p. 914.

Corpus depressum, convexiusculum, glabrum; caput parvum, cordiforme, rostro piloso fere quadruplo brevior quam antennis; oculi ocellis 1, 2 vel 3, haud procul pone antennæ siti, postice divergentes; antennæ articulis brevibus compositæ, longitudine dimidiam corporis latitudinem haud assequentes; segmentum primum lateribus longe productis; segmenta omnia lævia, glabra, parte postica levissime aciculata; foramina repugnatoria, primo pari excepto, procul pone suturam transversam sita; valvulæ anales convexiusculæ, marginatæ, læves, glabræ. Numerus segmentorum 43–47 (40–50). Color dorsi flavus vel fulvus, interdum vittis transversis obscurioribus, ventris pallidior. Longitudo 12–18 m. m.

Hab. circa flumen Jenissej ad pagos Vorogova (60° 55'), Nischnij Inbatskoj (63° 50'), Baklanovskij (64° 25'), Goroschinskij (66° 17').

XXXI.—*Descriptions of some new Species of Annelida from Kerguelen's Island.* By W. C. M'INTOSH.

THIS collection was made by the British Transit-of-Venus Expedition, and consists of seven species, representing five families, one of which, however, is Nemertean. Six appear to be new. Like the Polyzoa and Cœlenterata, described by Professors Busk and Allman, they were procured by a grapple in the Laminarian region, under a depth of 10 fathoms. The Rev. A. E. Eaton (Naturalist to the Expedition) states that the shore was somewhat unfavourable for collecting between tide-marks, as it consisted for the most part of ledges of rock without loose boulders, or of a coarse and barren shingle. The mean temperature of the water between tide-marks was 36° F.